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SECRETHUNGARYScientific/Economic

3 kw. and 5 kw. valves produced at
the MAGYAR ADOCSOGYAR Electrical Plant, BUDAPEST

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1. Attached are full-size drawings of the 3 kw. and 5 kw. valves produced at the former Phillips factory in BUDAPEST (now the MAGYAR ADOCSOGYAR Electrical Plant).
2. Abbreviations and Hungarian terms used by the draughtsman are as follows:-

SZIVO CSO (UVEG)	=	Suction tube (glass) (for creation of vacuum).
CU(E)	=	Electrolytic copper
Ni	=	Nickel
Mo	=	Molybdenum
KEMENY OVEG	=	Hard glass (FERNIKO glass)
GYURU	=	Ring
O.F.H.C.	=	in a vacuum
Tho.	=	Thorium
ZIRKONAZVAS	=	Zirconium ?
METRALKUS CSAVAR	=	Metrical bole
Ni LEMEZ	=	Nickel plate
Mo RUD	=	Molybdenum rod
Wc	=	Tungsten
Tho. 2% Wc.	=	Tungsten with 2% Thorium
RACS	=	Plates
KALKI VAGY KVARC GYIKGY	=	Porcelain or quartz insulating blob
TARCSA	=	Round plate
LESZIVO RESZ (UVEG)	=	Suction part (glass)
Mo CZECECS 6 DRB	=	6-piece Molybdenum rivet
12 x 3 ø x 5 m/m	=	12-piece bolt, 3mm. wide, 5mm. long

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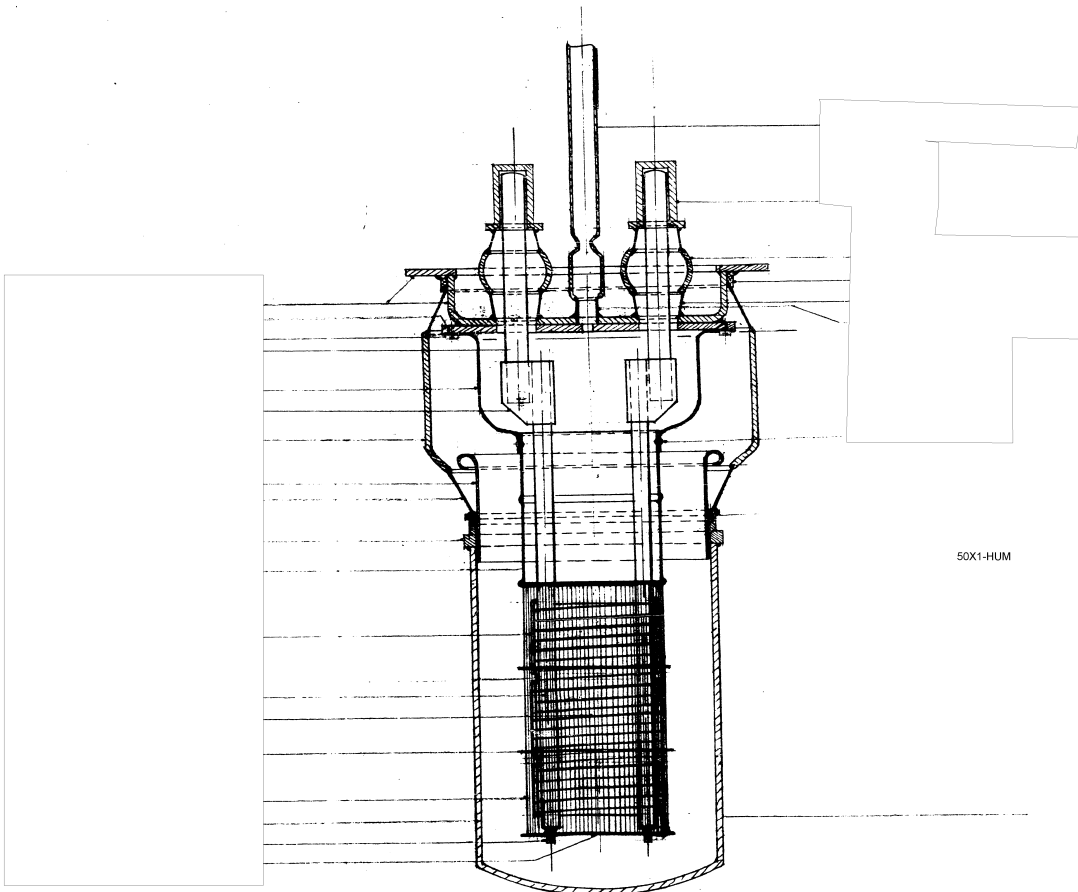
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3 KW

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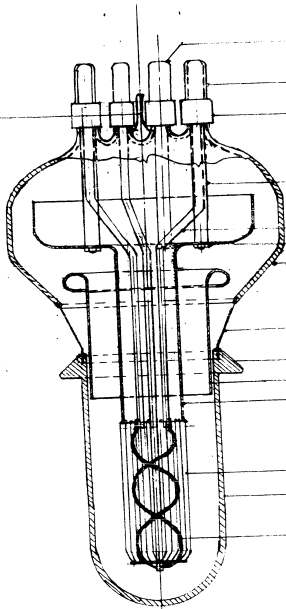
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SCIENTIFIC/ECONOMICPlans of the MAGYAR ADOCSOGYAR Electric Plant BUDAPEST

1. Attached are drawings showing the layout of buildings, offices and workshops of the MAGYAR ADOCSOGYAR electrical plant, BUDAPEST (formerly PHILLIPS).
2. Also attached is a key indicating the work carried out in each room or workshop.
3. The original factory consisted (1931) of that part which extends from rooms 5 and 6 (on the ground floor) and up to the present staff entrance at 35. In 1934, a separate block was built (rooms 1 and 2) but this was joined to the main building in 1935 by the addition of rooms 3 and 4.
4. In the years 1942 - 45, extensions to the factory were made to the east and northeast of the staff entrance as far as the present trade entrance. This work was not properly finished until 1948.
5. A new block, two storeys high was started in 1950 from the trade entrance and extending out to the north and west. This work is only now being drawn to a close.
6. Of the other buildings:

A	was	built	in	1943 - 44	(replacing an earlier timber construction)
B	"	"	"	1954	
C	"	"	"	1956	
D	"	"	"	1947 - 48	
E	"	"	"	1931	
7. The head of this factory, on the technical side, was ^XGARAY Laszlo and his deputy was ^XSARRETTI Jozsef. On the administrative side, the head was ^XERMER Arpad and his deputy was ^XKLEMEOVICS Jozsef. ERMER was theoretically but not actually, the head of the whole factory.

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GROUND FLOOR

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1. Chemical research laboratory, under the direction of ^XTOMASEK, Zoltan, a chemical engineer, [redacted] This laboratory was known as HIKI II (i.e. HIRADAS TECHNIKAI INTEZET = Communications technical institute). HIKI I and III etc. were situated in other factories. TOMASEK had two assistants, one of whom was ^XTALLOSNE f.n.u., [redacted] 50X1-HUM
 2. The office used by TOMASEK.
 3. M.E.O. (MUNKAT ELLENORSŐ OSTALY = Work control office). This office checked the quality of the products made in rooms 5, 6 and 7. 50X1-HUM There were two or three inspectors here including ^XMAROS, Lajos [redacted] 50X1-HUM He also had an office in room 44 on the first floor.
 4. Corridor, stairs and W.C.
 5. Tool-shop, producing tools used in the factory. Eight or ten men worked here.
 6. Fitters and welders. Six men.
 7. Workshop employing 25 men and producing components of valves (cooling systems, anodes, ferricos etc.). ^XLASKO, Jozsef was in charge of this room as well as 5 and 6. Under him in room 7 worked ^XPAPP, Bela (foreman) and ^XCSAMO, (Sandor?).
 8. Pumping room, in which air was extracted from the valves (sizes .5 KW to 20 KW and all types of mercury valves). The machines used were Hungarian patented High Frequency machines. This was an older part of the building, but did the same work as was done in room 25, (but the machines in the latter room were of a different type).
 9. Changing rooms, W.C.s wash-rooms etc.
 10. Store room for tools.
 11. A workshop where machines were made to help in the process of valve manufacture. Instead of putting the job out to contract, it was often decided to make the necessary machine or apparatus on the spot. Here was made part of the apparatus for extracting air from thorium tubes, although the actual pumps were obtained elsewhere.
- ^XHOMITS, Gyula was in charge of this section.

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12. In this room, machinery used in the factory was given periodical overhaul, and attention was given to machines which were giving less than their proper performance. It did not deal with actual breakdowns of machinery - this was done by a team of men in room 26. ^XKERESZTES, (Lajos?) was in charge of room 12 and had ten men under him.

13. This room housed the generating plant which supplied electric current (D/C only) for machinery in room 8 and elsewhere in the factory. It also housed aircompressors and High Frequency heating apparatus (10,000 period) in room 34 on the first floor. Four men worked in room 13.

14. Gatekeepers' office (with four or five persons) including an internal telephone exchange (14.a)

15. Room containing heating apparatus for purifying metals.

16. Ante-room.

17. Glass technicians room. Two persons worked here; one was ^XNAGY, Oszkar.

18. Here was housed some of the air-extracting plant used in the research department. (Two women worked here).

19. More air-extracting apparatus, but larger and more powerful. Four people worked here, including ^XEREKI, Vilmos and ^XMAKO, Zoltan (both qualified engineers, MAKO was a Jew and a convinced communist).

20. This was a workshop producing components for the research section and a storeroom for the parts produced. ^XDARIDA, Istvan was the foreman; he had 3 men working for him.

21. This was the office used by research technologists including (Dr.) ^XKONCZ, Istvan, a doctor of chemistry. He was in charge of the research sections, which included rooms 1, 2, 15 - 21. KONCZ came only twice a week to the factory as he was in charge of the chemical research laboratory at BUDAPEST University. Room 21 was also used by the other engineers (EREKI, MAKOS etc).

22. Production manager's office: ^XSZASZ, Laszlo (a Jew).

23. Sales office or commercial section: ^XTARGZON, Laszlo, assisted by one person.

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- 24. Material requirements office: manager was ^xCZUG, Emil, assisted by a mainly female staff.
- 25. Pumping room, employing 25 people.
- 25a. Wired-off section containing vacuum pumps for the production of valves from 0.5 KW - 160 KW.
- 25b. As 25a, but not wired off.
- 25c. Wired-off section containing pumps for the production of mercury valves.
- 25d. Benches for testing and measuring performances of large valves.
- 25e. Benches for testing and measuring performances of small valves.
- N.B. Valves were kept in this room for ten days, after which they were given another examination prior to packing.
- 26. Office and workshop used by a breakdown repair service of 8 or 10 men. The foreman was ^xBETTENBUCH, Miklos (cf room 12).
- 27. Packing room (2 - 3 persons).
- 28. } Darkrooms for X-ray photography of valve interiors. This operation
- 29. } could be carried out either before or after the extraction of air, but was normally done after.
- 30. W.C.
- 31. Washroom and Bathroom.
- 32. Changing room.
- 33. Corridor.
- 34. Trade entrance (not used by the staff).
- 35. Main entrance (the only one used by the staff).
- 36. Main gate (for lorries etc.)

FIRST FLOOR

- 1. Drawing office preparing plans for use mainly in room 11 on the ground floor. There were 8 - 10 men here under ^xSIGMOND, Janos, a qualified engineer.
- 2. Room used for the storing and reproduction of plans. Here worked ^xHEINCINGER, Jozsef and ^xSZEDLACSEK, Mihaly (Senior) whose son worked in room 11 on the same floor.
- 3. Drawing office for valves. 8 men worked here and were under HEINCINGER.

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4. A room used for the training of glass technologists. There were normally about 12 students here, under ^xMINICH, György (himself a skilled technician [redacted]).

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5. Technical section, studying the processes and materials involved in the manufacture of valves (e.g. method of air-extraction, suitability of metals etc). The man in charge here was ^xSARRETTI, Jozsef, with a deputy ^xBERENYI, Janos. Eleven other men worked here.

6. Workshop for the production of "dwarf tubes" (TORPE CSÜ i.e. indicator lamps, neon lamps). In charge was ^xCSABO, Karoly, with 20-25 men under him.

7. Sports room.

8. Component store-room for room 6 (1 person).

9. Culture room.

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10. Staff superintendent appointed by the Party. This post was occupied by a ^xMrs. RAJNAINE assisted by a Secretary. [redacted]

11. Labour office. This was run by ^xSZEDLACZEK Mihaly (Junior) who acted as the factory's representative in all questions of pay, grievances, etc.

12. Workers' representative UZEMI BIZOTTSAG TITKAR, appointed and paid by the Workers' Union Central organisation. This man was ^xFEHER, Lajos, who also organised production competitions.

13. Petty cash office for incidental expenses (not wages).

14. Factory manager, ^xERMER, Arpad.

15. Ante-room for ^xERMER's office, and office for his secretary.

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16. Factor chief engineer's office (^xGARAY, Laszlo). [redacted]

17.) Clerks, 17 - 18 in number. ^xKLEMANOVICS, Jozsef was the chief
18.) clerk.

19. Pay office where wages were paid out.

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20. Document office and records of correspondence. Stationery was also kept here, but not the drawings and plans.

21. The norms office (NORMA IRODA) where the norms for the factory were established. Four or five men worked here including ^XJUHASZ, Jozsef, ^XLAKATOS, Antol and SZEDLACZEK (Jun.)

22. Office occupied by ^XSVED, Jozsef, materials supervisor. He had to ensure a steady flow of materials into the factory in order to prevent hold-ups in production. [redacted]

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^XSARRETTI, Jozsef, head of the technical section in room no.5 also used this office.

23. Planning office - G.Y.E.K. (GYARTAST ELOKESZITO OSZTALY). ^{Sir} [redacted] or seven men were employed here including ^XKOVESDI, Frigyes [redacted] and ^XMOLNAR, Mihaly [redacted]. Their task was to plan production one month ahead. [redacted]

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24. Security office (TITKOS UGY KEZELES). Here were kept all the vital documents relating to the factory, to production and to personnel. It was run by ^XCSONGRADI, Margit (2 [redacted])

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25. In this office, future production was planned up to one year in advance. It was run by ^X(Dr.) KAPOLNAGI f.n.u., together with a female assistant. KAPOLNAGI was also responsible for monthly statistical bulletins indicating the amounts paid out in wages etc. compared with production over the same period. [redacted]

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26a. Office of the Party secretary, used by CSONGRADI when acting in this capacity.

27. Advance planning office (GAZDASAGI OSZTALY) responsible inter alia for ordering materials a year in advance. ^XKALMAN, Tibor was in charge of four assistants (cf. office 25 above, which dealt with future production).

28. A room used for minor sand-blasting operations (cleaning of parts, etc.) The engine producing the compressed air was under the stairs near room 23. on the ground floor.

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29. Workshop producing small components for tubes. 10 or 12 men worked here.
30. Office used by ^XVAGO, Bela and his two deputies ^XSZEPVOLGY, Miklos and ^XBATORFI, Geza. VAGO was in charge of the work done in rooms 28 - 37 (less rooms 31 - 33).
31. X-ray room (developing and processing).
32. X-ray room (with apparatus running at 150,000 volts).
33. Instrument room for the apparatus in room 32.
34. Workshop for producing small valve-components and also for heating components (for purification of metals).
35. Assembly room for large valves (6 men).
36. Ditto (also 6 men).
37. Room containing an electric stove for heat-purifying components (The store was fitted with hydrogen to prevent oxidisation). One man only worked here.
38. Chemical cleansing room.
39. Room for the cataphorisation (?KATAPHORIZATOR) (? CIRKONIZALAS) of various metals.
40. Room for electro-plating with nickel, copper and silver the various small provision parts of the valves.
41. Room for polishing tungsten (wolfram) with electricity. ^A(Mrs.) ^XSZAKAL, Jozsefne was in charge of seven workers here, but both she and the others also worked in rooms 38, 39 and 40.
42. M.E.O. (similar to that in room 3 on the ground floor) for checking the products of the workshops on the first floor.
43. Components store room.
44. Office used by the head of the M.E.O., ^X(MAROS) Lajos: see room 3. on ground floor), and also ^XSEBOK, Sandor, head of the glass section.
45. Office used by a repair team similar to that in room 26 on the ground floor, except that it dealt with breakdowns in the glass components of pumping apparatus. Four men were employed here and were constantly having to attend to the 30 - 35 pumps in the factory.
46. Section for manufacturing glass. 15 - 16 men were employed here, under SEBOK.

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47. W.C.

48. Design improvement research section (FEJLESZTESI OSZTALY KISERLETI SZOBA) headed by DEAK Miklos, with three assistants, all qualified engineers:- SZABO Laszlo, EGERSEZGI Lajos, POLCZOS (Tibor?).

49. Corridor.

50. Rest-room for the research staff in room 48.

51. Office of DEAK Miklos.

52. Board-room or consultation room.

SECOND FLOOR

The second floor of the factory is devoted to the manufacture of small-size valves e.g. TUNGSRAM types OT 100, OT 400 and OS 125. There were about 18 people employed on this floor.

1. A section wired off from the rest of the room and used for measuring the electrical capacity of the valves produced. Three men worked here.
2. Bench where the plug-head was fixed to the glass body of the valves.
3. A line of 5 vacuum-pumps.
4. Office used by the heads of this department: GUBICS Janos and (Dr.) TOTH (a woman).
5. Room used by the glass worker, SEBOK Geza, (brother of SEBOK Sandor in room 44 on the first floor). A workman, not a technologist.
6. Room housing a pre-pumping unit, used to test the valves for leaks before final exhaustion.
7. Workshop for assembling the valves.
8. Room used for the chemical cleansing of small components (CIRKONIZALAS).
9. Workshop for the manufacture of components. Two people worked here.

GROUND FLOOR (Other buildings)

- A. 1. General stores.
2. Office of the stores manager, KALMAR Istvan.
3. Office of the "Political Representative" appointed by the AVH.

This official was a woman KOVESDI Jozsefné (nee BERCZI Zsuzsanna)

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- [REDACTED]
- B. Store room for gas cylinders (oxygen, hydrogen etc.)
- C. Plant for producing liquid air.
- D. 1. Labourers or unskilled workers pool. Here labourers used to wait until required for work.
2. Joiners' room.
- E. 1. Office of DEAK Andras, the official in charge of the breakdown teams in rooms 12 and 26 on the ground floor and room 45 on the first floor.
2. Surgery.
3. Creche.

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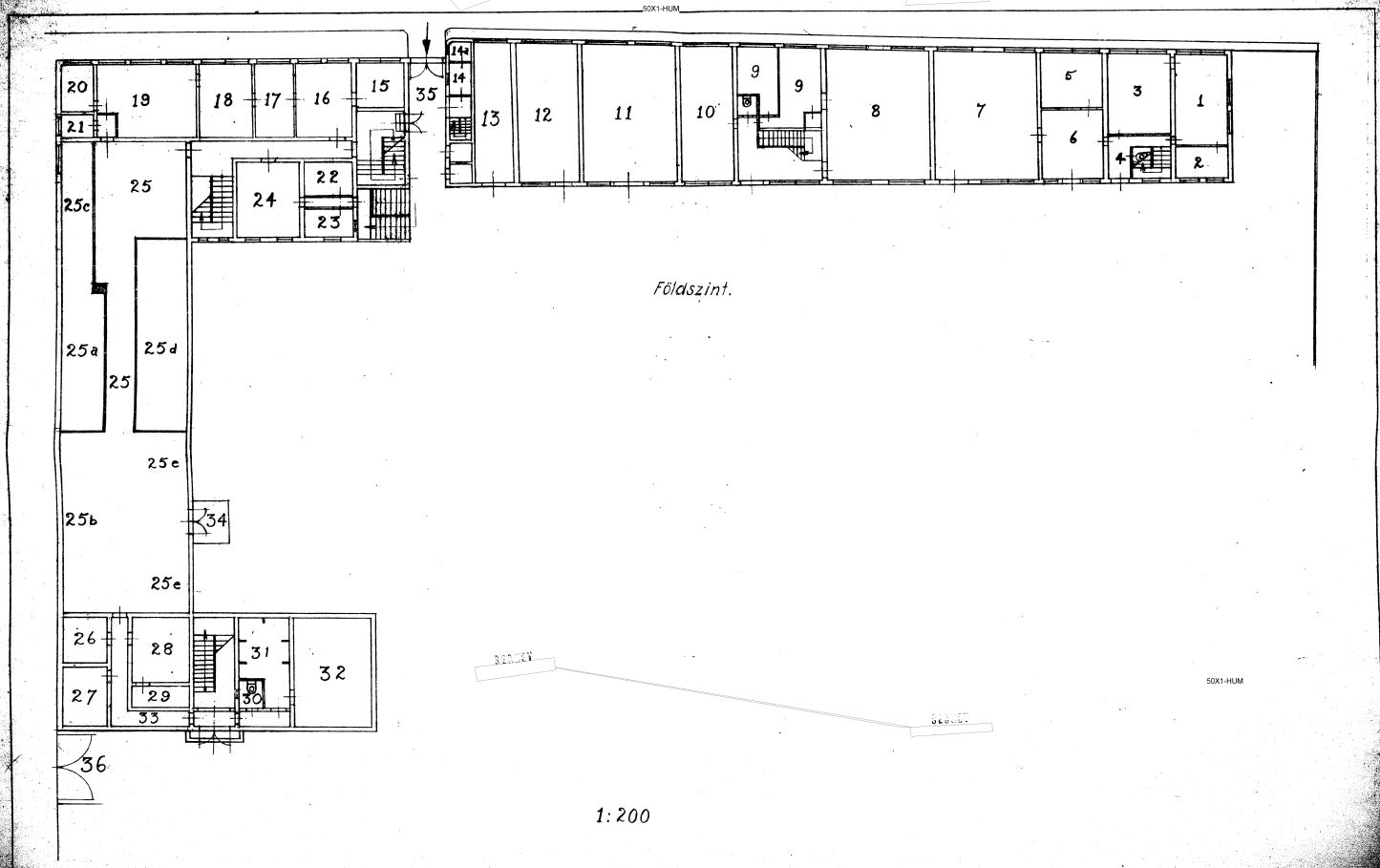
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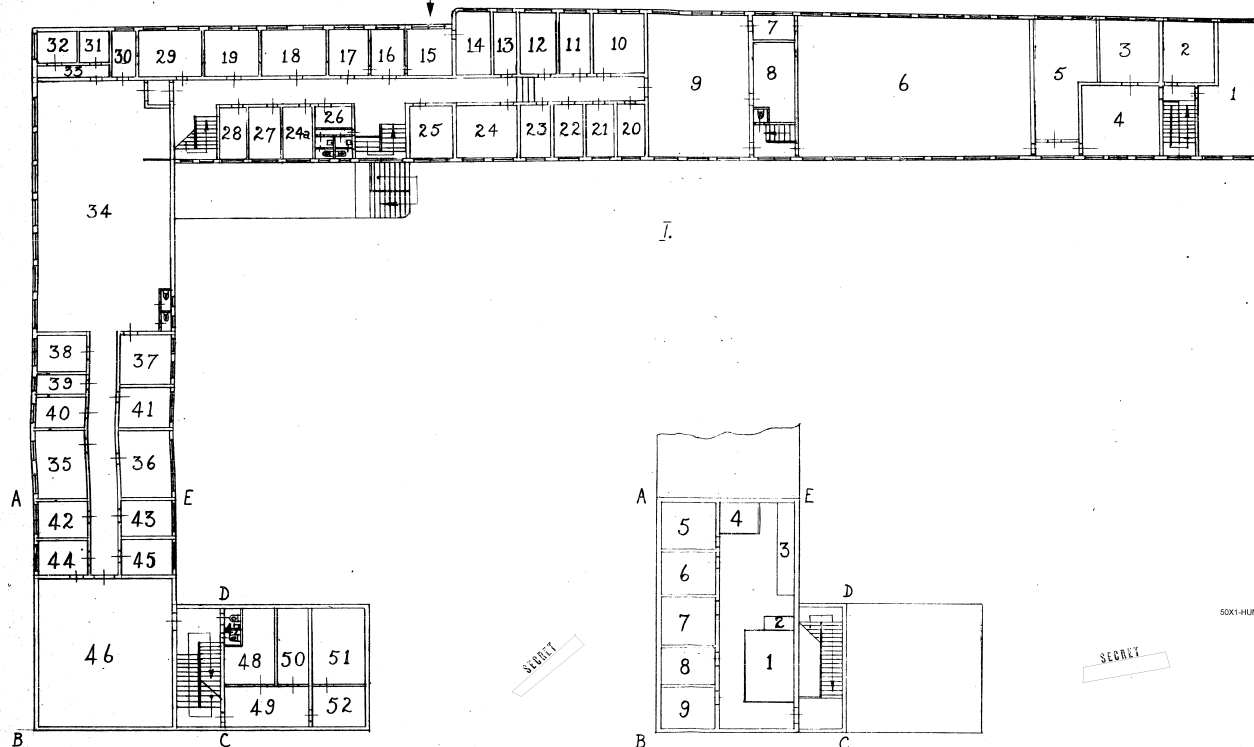
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Second
~~FIRST~~ AND *Third*
~~SECOND~~ FLOORS

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